

CLAIMS

1. A plasma treatment apparatus for plasma treating a surface of a substrate in a treatment chamber, comprising:

5 a base portion which forms a bottom portion of the treatment chamber;
a box shaped member with its lower surface side open and a lower end portion abuts against a base surface on top of the base portion so as to form the treatment chamber;
an electrode section which is fitted on the base portion through an insulator and whose upper surface is exposed in the treatment chamber;

10 a substrate mounting portion which constitutes an upper portion of the electrode section and whose upper surface is covered with a ceramic;

plasma generating means for generating plasma for plasma treatment in the treatment chamber;

15 a plurality of bar-shaped ceramic guide members which are disposed on the upper surface of the substrate mounting portion along a substrate transporting direction and are adapted to guide side end surfaces of the substrate mounted on the substrate mounting portion; and

guide member holding means for holding longitudinal both end portions of the guide members,

20 wherein the guide member holding means includes:

a pair of fixed members which are fixedly disposed on the base portion in a transverse direction being at a right angle to the substrate transporting direction along outer edges of the substrate mounting portion,

25 a plurality of supporting members whose position in the substrate transporting direction is positioned by the fixed members and which are adapted to support the both end portions of the guide members, and

fitting means for fitting the plurality of supporting members to the fixed members such that the interval in the transverse direction is adjustable.

30 2. The plasma treatment apparatus according to claim 1, wherein a plurality of groove portions are formed on an upper surface of the substrate mounting portion along the substrate transporting direction by cutting the substrate mounting surface, and

a projecting portion of a projecting dimension smaller than a depthwise dimension of the groove portion and a notched portion formed by notching a bottom of the guide member formed in a shape a rectangular bar with a notching dimension larger than a widthwise dimension of the substrate are formed continuously in a longitudinal direction

5 on the bottom of each of the rectangular bar-shaped guide members, a side end portion of the substrate mounted on the substrate mounting surface being guided by the notched portion in a state in which the guide member is placed on the substrate mounting surface by advancing the projecting portion into the groove portion.